

Secondary Education Attainment and Social Economic Transformation in Rural Tanzania:Observations from Livelihood Strategies of Primary and Secondary Education Graduates in Myomero District.

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Abstract

This paper examines the influence of secondary education in promoting; health awareness, gender awareness and civic awareness. The study sought to assess whether the education policy which considers secondary education as the key instrument in bringing social and economic transformation has been reflected in graduates' livelihood strategies once they graduate and go back to the societies. The study was conducted in Mvomero district in Tanzania. Quantitative methods were used to assess the relationship between education attainment and one's social economic awareness. Stratified sampling was employed to get the two strata namely secondary education graduates and primary education both working in informal sectors. Systematic sampling was then used to select the participants from each stratum. The sample comprised of 170 secondary education graduates and 170 primary education graduates making a total of 340 respondents. The data were analyzed by SPSS and Man Whitney U test in particular. The result for the study shows education to have negligible impact in influencing livelihood strategies to graduates as there is no notable difference between Primary and secondary education graduates. The study suggests the ministry of education, policy makers and policy implementers to work together so as to bring about positive results which could reflect the policy statements and manifestations.

Keywords: Secondary education; social economic transformation, livelihood strategies, Mvomero district.

1.Introduction

Livelihood Strategy refers to the ways and means of individual engaging in particular economic activities, organized in a particular way to produce their livelihood outcomes or meet their needs, wants and aspirations (Hudu, 2009). It comprises not only activities that generate income, but many other kinds of choices, including cultural and social choices, that come together to make up the primary occupation of a household (Ellis, 1998). This paper examines the influence of secondary education in promoting; health awareness, gender awareness and civic awareness. It is a product of a study which sought to assess whether the education policies (i.e. ETP, 1995; ETP, 2014 and TDV 2025) which consider secondary education as the key instrument in bringing social and economic transformation, are being reflected in the graduates' livelihood after the completion of their studies.

Recently, the rural setting of Tanzania has been changing in terms of population and people's educational background. The current expansion of secondary education enrollment from 401,598 students in 2004 to 1,728,534 in 2013 (BEST, 2013) has increased the number of secondary education graduates in the society than before. Despite the rise of enrollment, there has been poor transition rate to high school from 29.8 percent in 2004 to 10.6 percent in 2012 (ibid), making the gross enrollment rate to be only 4.2%. The Human Development Report (2014) spells out that the poor performance in ordinary level secondary education has been increasing yearly. For example, in 2012, about 80 percent of candidates in ordinary secondary education examinations failed. When a candidate fails, it means that they cannot proceed with higher levels of education. This implies that such graduates have to go back home and join their communities in informal occupations which can sustain their livelihood.

Although the Tanzania Development Vision 2025 regards education to be the key instrument in bringing social and economic transformation and a strategic agent for mind-set transformation (URT 2000), there is limited evidence of whether secondary education graduates are the catalysts for social economic transformation in their societies. Most of the studies on secondary education which have been conducted so far have focused on issues of examination performance, teaching and learning environment, and teachers' welfare (Twaweza, 2012; Makombe et al, 2010; Best, 1998-2012; SEDP II;Sumra & Katabaro, 2014). There is limited knowledge on the influence of secondary education graduates in transforming social economic livelihoods within their societies. The pursuit of such information is pertinent considering that the informal economy absorbs more than 80 percent of secondary education graduates every year. Thus, in view of this, it was worth examining whether secondary education has a significant influence on social economic livelihood strategies adopted by secondary school graduates residing in rural areas.

1.1. Theoretical framework

This study was guided by Human Capital Theory, pioneered by Schultz in 1960. Human capital is the capacity of



human beings as productive agents to promote increases in income through the acquisition of skills and the accumulation of knowledge (Clark, 2006, pg. 240). It comprises the collective accumulation of investments in education, training and health that raises the productive capacity of people (Becker, 1993, pg 15-17). The skills accumulated can enhance productivity and the knowledge imparted generates innovation. Investing in human capital can therefore raise the market value of future labor supply and it is deliberately accumulated by investment in training and education by individuals. According to Human Capital Theory, higher skill level in the workforce increases the production capacity and the production level (Joop & Henrietta, 2007). It is further stipulated in this theory that an increase in the average years of schooling in the population increases the human capital stock, and thereby the production level. This paper considers health awareness, gender awareness and civic awareness as important aspects which play significant roles in transforming socioeconomic livelihood. However, it is also worth noting that the three aspects are influences by education.

1.2. The role of education in promoting health awareness

Education plays an indirect role in poverty reduction as it affects societal wellbeing. The health of educated individuals and their children as a result of awareness brought by education (Bauman & Rosen, 1982; Desai 1987) are the main drives for economic development in those families. Education can impart knowledge and skills required for a person and their respective families to live health life styles. Being physically fit is a capital for human beings to be productive in their daily activities. Education and health are positively correlated as each affects the other. The educated individual is expected to live healthier life style because of having basic knowledge about good health. Likewise good health affects education as the healthier individual is capable of studying effectively at school and being productive. In the same light, some scholars affirm that years of formal schooling completed in United States of America is the most important correlate of good health and increase in the standards of living (Grossman & Kaestner, 1997; Groot &Van den Brink, 2007). In addition, Human Development Report in 2003 reveals the positive relationship between educational attainment in a country – as measured by the net enrollment ratios on primary and secondary education – and health – measured by life expectancy at birth and the infant mortality rate.

Education does not only contribute to health status of an individual but also fertility decisions and child mortality rate. A study done in Tanzania shows that women aged 15-40 years with primary education had the fertility rate of 6.0 compared to those with no primary education whose fertility rate stood at 6.5 (Omary, 1999, cited in Wedgwood, 2007). A significant difference was observed to women who had secondary education who had the fertility rate of 4.2. Fertility rate of a woman has a positive impact on economic development. Women who have low fertility rate have more time to participate in economic activities and hence be in a better economic position than those whose fertility rate is high. This implies that policy and decision makers in different countries ought to take measures which ensure that the majority of girls are educated in order to reduce poverty, hence improving socioeconomic livelihood of their communities as educated mothers.

1.3. The role of education on promoting civic awareness.

Education is the key to life as it affects an individual socially, politically, and economically. Early views of Aristotle emphasized the role of education in informing citizens and increasing their capacity to make "good" electoral decisions. There are many benefits of education. For example, Arrow and Intriligator (2011:p. 261) identify the benefits of education as inculcating civic and democratic values, either through the explicit design of education systems (especially in democratic countries) or indirectly by improving analytical skills and an awareness of history and a diversity of opinions. Education may also indirectly affect political participation by altering social networks and peers.

Countries with higher average years of primary schooling have greater electoral rights and civil liberties (Barro, 1999). Likewise Nie et al, (1996), cited in Arrow and Intriligator (2011:p. 264) indicated a strong correlation between educational attainment and political participation, voting, and civic awareness at the individual level. This means that by educating its citizen, the country is likely to have citizens who are aware of their rights. This may reduce the incidence of crimes as Arrow and Intriligator (2011p. 269) acknowledge. In view of this, this study was also designed to assess the impact of education in promoting civic awareness to secondary education graduates.

1.4. The role of education in promoting gender equality

Education acts as a catalyst for promoting gender equality and empowering women. A number of studies show a significant impact of education in improving key development outcomes of girls and women, such as reducing fertility and child mortality or increasing worker productivity (ICRW, 2005). Moreover education enhances women's well-being and gives them a greater voice in household decisions (Kritz, &Adebusoye, 1999), more autonomy in shaping their lives, and better opportunities for participating in the community and labor market. Assaad and El-Hamidi(2001) and Mammen and Paxson (2000) shows that secondary or higher levels of



schooling lead to improved options, opportunities, and outcomes for women. This is also in line with the observation by ICRW(2005) which regards secondary and higher levels of education to have the greatest payoff, investments that address the social and economic constraints.

It is generally acknowledged that gender equality will be difficult and almost impossible to be attained if policy makers in developing countries in particular, will not broaden the scope of access to secondary education. Despite the initiatives to increase opportunities for secondary education, deliberate efforts should be made to ensure that all girls have access to secondary education. It is also pertinent to have a gender sensitive curriculum which promotes equity and equality between boys and girls. With regard to gender, this paper sought to assess whether the additional four years of secondary schooling (after primary education) in Tanzania makes a difference in decision making and involvement of women in the labor force.

2. Methods and data

Quantitative methods were used to find the relationship between education attainment and one's social economic awareness. The study was conducted in Mvomero District of Morogoro Region, in Tanzania. Stratified sampling was employed to obtain two strata, namely secondary education graduates and primary education both working in informal sectors such as tailors, masonry, carpenters, entrepreneurs and peasants. Systematic sampling was then used to select the participants from each stratum. The sample comprised of 170 secondary education graduates and 170 primary education graduates making a total of 340 respondents. The structured questionnaire was used to gather information from both secondary and primary education graduates.

3. Results and Discussion

The data were analyzed using SPSS and, in particular Man Whitney U test. The Man Whitney U test used to; compare the influence of formal education in health awareness between secondary and primary education graduates in aspects such as number of children, birth spacing Child mortality, decision of both partners on when to have a child, use of mosquito nets, attendance to hospital, and access to safe water. It was also used to compare the influence of formal education in gender awareness between secondary and primary education graduates in aspects such as participation of women in labor force, decision making, and income spending. The same tool was also used to assess the influence of formal education in civic awareness between secondary and primary education graduates, such as civic education, civic responsibility and participation in village development projects. The following are the results for the study.

3.1. The influence of education in promoting health awareness

Health awareness was assessed by comparing the number of children, child spacing and child mortality rate between primary and secondary education graduates families. The aspects were compared using the Mann Whitney U test and the results were as presented in Table 1:

Table 1: The influence of education in promoting health awareness

	Number of children Mortality rate Child sp		
Mann-Whitney U	3429.5	106.5	2026
Wilcoxon W	7345.5	226.5	2806
Z	-5.661	-1.561	-0.542
Asymp. Sig. (2-tailed)	0.000	0.119	0.588

Grouping variable: Education level of the respondent

With regard to the role of education in promoting health awareness, the study shows a significant influence of education on determining the number of children, p = 0.000. Secondary education graduates had a median of two children while primary education graduates had a median of 3 children as shown in Table 2

Table 2: Average number of children with respect to the level of education of the respondents

Education level of the respondent	N	Median	Std. Deviation
Primary education	162	3	1.22355
Secondary education	90	2	1.88788

As indicated in Table 2, the number of children is the function of education level of an individual as secondary education graduates have fewer children than primary education graduates. In other words, the number of children is inversely proportional to the level of education of an individual. However, education level shows to have no significant impact on child spacing and mortality rate for the families of secondary and primary education graduates. In view of these results, it can be stated that, as the level of education increases, the number of children decreases.

The role of education in health awareness was also assessed by examining the respondents' practices, including the use of mosquito nets, attendance to hospital, and access to safe water. The variables were compared by using Mann Whitney U test to find whether education level of an individual has a significant impact on health



awareness.

Table 3: Education level of an individual versus health awareness.

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	Both partners decide	Buying medicine from the	I Rarely sleep under					
	when to have a child	pharmacy my children have	mosquito net because my					
		symptoms of fever	body is resistant to malaria					
Mann-Whitney U	9952	8383.5	13801.5					
Wilcoxon W	19405	21424.5	29554.5					
Z	-1.891	-4.681	-1.879					
Asymp. Sig. (2-tailed)	0.059	0.000	0.060					

Grouping variable: Education level of the respondent

Table 3 shows that education has a significant impact on making decision to buy medicine from the pharmacy once an individual or a family member has symptoms of fever (p = 0.000). It was revealed that 74.29% of primary education graduates prefer buying medicine from the pharmacy once an individual is sick compared to 24.70% of secondary education graduates. Therefore, it seems that secondary education knowledge has a significant impact on promoting individual's health awareness to attend to hospital rather than simply buying medicine from pharmacies. However, as indicated in Table 3, sleeping under mosquito nets (p = 0.060) and decision by both partners on when to have a child (p = 0.059) seem to be slightly significant with the level of education of an individual

Regarding the same aspect of sleeping under the net, a cross tabulation produced results as indicated in Table 4:

Table 4: Sleeping under mosquito nets

		Education level of the respondent	
	Primary education S		Secondary education
	Count	12	4
Yes	%	75	25
No	Count	165	159
	%	50.92593	49.0740741

As shown in Table 4, the number of primary education graduates who rarely sleep under mosquito nets, claiming that their bodies were resistant to malaria comprises 75% compared to 25% of secondary education graduates. The difference in percentage implies the significant impact of secondary education knowledge in imparting health awareness to an individual.

3.2. The influence of education in promoting civic awareness

The influence of education in enhancing civic participation was assessed by examining aspects such as individual participation in: planning village development programs, designing village development projects, implementation of village projects, political issues, deciding on how to spend village income, appling for leadership position in the village council and volunteering in village development activities. The findings were as shown in Table 5:

Table 5: The influence of education in promoting civic awareness

	Participating in planning village development programs	Participating in designing village development projects	Participation in village development projects implementation	Participation in political issues	Participating on deciding how to spend village income	Appling for leadership positions in the village	Held a leadership position in village council	Volunteering in village development activities
Mann-Whitney U	14388	13831	14074	14248	13875	13621	14292.5	14498.5
Wilcoxon W	27754	29762	27440	27614	27241	26987	27658.5	27864.5
Z	-0.1353	-0.7764	-0.49101	-0.304	-0.76043	-1.3141	-0.3772	-0.0096
Asymp. Sig. (2-tailed)	0.89237	0.437478	0.623423	0.76103	0.446999	0.18878	0.70596	0.992316

Grouping variable: Education level of the respondent

In overall, the findings show that secondary education has no significant impact on enhancing individual's civic participation as shown.



3.3. The role of education in promoting female participation in labor force

Regarding female participation in labor force, the results show that education has a significant influence on home environment cleaning, p = .019. The primary education graduates tends to do more home cleaning by 64.4% than secondary education graduates who participate in cleaning environment by 35.6%. However, education shows to have no significant influence in aspects of female participation in labor force such as collecting firewood, food preparation, fetching water, washing clothes and economic activities, as shown in Table 6.

Table 6: Female participation in labor force

	Home environment cleaning	Collecting firewood	Taking care of children and other family members	Food preparation	Fetching water	Washing clothes	Economic activities
Mann-Whitney U	1997	1643	1837.5	1655	1718	1602.5	1606.5
Wilcoxon W	6653	2678	2872.5	5483	5546	5430.5	5261.5
Z	-2.341	-1.55	-0.613	-1.545	-1.229	-1.81	-1.584
Asymp. Sig. (2-tailed)	0.019	0.121	0.54	0.122	0.219	0.07	0.113

Grouping Variable: Education level of the respondent

3.4. The role of education in promoting female involvement in decision making in family welfares

With regard to the role of education in promoting female involvement in decision making in family welfares, the results show that education has no influence in female involvement in decision making. This means that secondary education in Tanzania has nothing to do with gender relations in the aspect of decision making, as indicated in Table 7.

Table 7: Involvement of female in decision making in family welfare

	Planning economic welfare of the family	Implementation of family plans	How to spend family income	Family expenditure priorities	Money expenditure	Power to influence family decision	Power to question income expenditure	Keeping family money
Mann-Whitney U	1784	1956.5	1704	1750.5	1771.5	1900.5	1660	1777.5
Wilcoxon W	2819	5784.5	2739	2785.5	2806.5	5728.5	2695	2767.5
Z	-0.861	-0.005	-1.269	-1.033	-0.925	-0.283	-1.472	-0.69
Asymp. Sig. (2-tailed)	0.389	0.996	0.205	0.301	0.355	0.777	0.141	0.49

Grouping Variable: Education level of the respondent

4. Conclusion

Tanzania Educational policy, Tanzania Development Vision (2025) and the National Strategy for Growth and Reduction of Poverty (NSGRP, 1996) consider education as the key instrument in bringing social and economic transformation. Despite such important consideration, this study has revealed that the situation in rural areas, as far as education provision and the role of the same in promoting livelihoods, is not as anticipated. The influence of secondary education which has been considered to be the key for the dramatic transformation of rural economy, shows to have no remarkable impact to graduates. The notable difference between secondary and primary education graduates can only be seen in the number of children as secondary education graduates have less number of children than primary education graduates. This could be attributed to the long duration of schooling for secondary school graduates who spend many years in schools than their primary school counterparts. On average, secondary education students graduate at the age of 18 years while primary education pupils graduate at the age of 14. The primary education graduates join their societies for the world of work at a very young age and most of them may become jobless. As a result, some of them get involved in sexual relations, hence becoming mothers at their tender age. These results are similar to those of Omary (1999) who found a significant difference in fertility



rate between primary school graduates, who had a fertility rate of 6.5, and secondary education graduates whose fertility rate stood at 4.2.

Although a number of studies have acknowledged that secondary education in Tanzania has failed to impart skills and knowledge to its graduates (Twaweza, 2012; Makombe et al, 2010; Best, 1998-2012; Sumra & Katabaro, 2014), this study has revealed that secondary education attainment has a positive impact in birth control and family planning. Secondary education graduates start reproducing when they are mature enough. This means that they can properly manage their families more than what their primary education counterparts can do. Giving birth at a young age is dangerous for health and economic production. It is therefore high time for the Ministry of Education made secondary education free and compulsory for every child.

There is a good number of studies which have revealed a significant reduction of children mortality rate to educated families (Wedgwood, 2007; Grossman &Kaestner 1997, p. 73; Groot & van den Brink, 2007; Human Development Report in 2003; and ICRW, 2005). However, this study shows no significant difference in children mortality rate and child spacing between secondary and primary education graduates as both had a mean of 1. In view of these results, it is suggestive that there are other factors than education that influence children mortality rate, such as the availability of health services and related services.

The influence of education and secondary education in particular can also be observed in attendance to hospital when an individual has symptoms of disease. This study shows that secondary education graduates go to hospital when they feel sick instead of buying medicine from pharmacies before undergoing medical examination. This implies that secondary education has a significant impact on ones' health awareness as the difference between primary and secondary school graduates on this aspect is remarkable. Although Tanzania has a number of campaigns on educating citizen about health awareness, including those which stress on the importance of seeking for medical advice in case of sickness, this study has revealed that education of an individual has a great influence on somebody's readiness to attend to hospital. In view of these results, it is recommended that, every child in Tanzania should attend secondary education in order to develop health awareness.

In addition, literature shows that one's education level is directly proportional to civic awareness (TIE, 2007; SEDP, 2010; Makombe et al 2010; Arrow &Intriligator 2011; Barro, 1999). However, this study has revealed that secondary education has no significant impact on enhancing individual's civic awareness. The results are quite contrary to previous studies and the general understanding of the role of education about promoting civic awareness. Under normal circumstances, it is expected that if an individual has secondary education, their civic awareness is higher than that of primary education graduates. Such observation could be attributed to the fact that the teaching and learning conditions in secondary schools, including the curriculum and methodological approaches being employed, are not in favor of developing civic awareness to students. Although the secondary education curriculum in Tanzania has shifted from teacher centered to learner centered (Lupeja, 2011; Vavrus, 2008), literatures show that both teaching and learning methods in secondary schools are still teacher-centered. As a result, students do not become imaginative and critical thinkers to enable social and economic transformation to take place.

Education acts as a catalyst for promoting gender equality and empowering women as it enhances women's well-being and gives them a greater voice in household decisions (Kritz, &Adebusoye, 1999), more autonomy in shaping their lives, and better opportunities for participating in the community and labor market. In this study, it has been found that secondary education has nothing to do with female participation in labor force and involvement in decision making in family welfares. Pertaining to the available literature, the study expected to observe a significant difference between primary education graduate and secondary education graduates (ICRW, 2005; Assaad & El-Hamidi 2001; Mammen & Paxson 2000). Nevertheless, there is no remarkable difference between these two groups. This means that secondary education in Tanzania has nothing to do with gender awareness. The results for this study are suggestive to policy makers, curriculum developers, curriculum implementers and the Ministry of Education that curriculum contents, teaching and learning methods, teaching and learning environment and teaching and learning resources have to be improved. The policy statements may be worthwhile and likewise the contents, the problem is with implementation which actually needs more than just statements. It should be underscored that implementation needs commitment of both the Ministry of Education and implementers (teachers). Teachers need to not only have skills and competences in teaching and preparation of learning resources, but also some sort of motivation from all stakeholders. This is likely to bring about positive results which promote the socioeconomic livelihoods of the Tanzanians.

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